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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,637	03/16/2004	Takashi Yashiki	250268US	1131

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

VELASQUEZ, VANESSA T

ART UNIT	PAPER NUMBER
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1793

NOTIFICATION DATE	DELIVERY MODE
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03/28/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/800,637	Applicant(s) YASHIKI, TAKASHI	
	Examiner Vanessa Velasquez	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application

Claims 2-5 and 7-13 are canceled. Claims 6 and 14-16 are withdrawn from consideration. Claims 1 and 17-19 are presented for examination.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 27, 2007 has been entered.

Claim Interpretation

Claim 19 will be interpreted to be dependent on Claim 1.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over ASM Handbook (Vol. 2, p. 1169) in view of JP 10-008234 (machine translation).

Regarding Claims 1 and 19, ASM (Table 49, p. 1169) discloses an electrolytic titanium material in which the Fe impurity content is no greater than 0.009%. Although the table is silent as to the content of Nb and Co, these impurities are expected to be absent from the titanium material because all the elements listed add to 100%. Nb and Co are not listed in the table. Therefore, one would expect the content of Nb and Co to be zero percent. The ASM reference teaches an overlapping titanium composition. Overlapping ranges are sufficient to establish a *prima facie* case of obviousness (MPEP § 2144.05).

Concerning the oxide limitation, ASM fails to teach the presence of a surface oxide on the titanium material. JP '234, however, teaches a titanium material with an oxide film that is greater than 20 Å (Abstract; Paragraph [0018]). This range clearly overlaps the claimed range. It would have been obvious to one of ordinary skill in the art at the time of the invention to grow an oxide film on the titanium material because

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the presence of a thin oxide reduces the occurrence of discoloration in the metal (JP '234, Paragraph [0018]).

Concerning the finishing process limitations in Claims 1 and 19, ASM and JP '234 are silent as to how the titanium material is produced. However, it is well settled that a product-by-process claim defines a product, and that when the prior art discloses a product that is substantially the same as that being claimed, the burden falls on applicant to show that any process steps associated therewith result in a product materially different from that disclosed in the prior art (MPEP § 2113). In the instant case, in the absence of the criticality of the finishing process limitations, they are not accorded patentable weight.

Regarding Claims 17 and 18, ASM does not teach employing electrolytic titanium in the construction of external walls or reinforcing members for buildings. However, its high corrosion resistance and strength (yield strength: 140 MPa) make electrolytic titanium an excellent candidate for building materials (ASM, "Chemical Properties" and "Mechanical Properties" sections, third column, p. 1169). Thus, it would be obvious to one of ordinary skill in the art to use electrolytic titanium in such structures because of its favorable chemical and mechanical properties, as disclosed by ASM (p. 1169). Additionally, the titanium material in JP '234 can also be used as in the manufacture of roofs, wallplates, and monument materials (i.e., building materials) (JP '234, Paragraphs [0001] and [0037]).

Response to Arguments

In the response dated December 27, 2007, Applicant amended Claim 1 (independent) and Claim 6 (withdrawn). Arguments were submitted traversing rejections in the previous Office action dated October 15, 2007.

Applicant's argument that the present invention is allowable over the prior art of record is not found persuasive. More specifically, Applicant argues that titanium that is heat treated for a time less than a critical value (see specification or claims for formula) produces a material that is more susceptible to discoloration. It is unclear, however, the amounts of Fe, Nb, and Co are commensurate in scope with the claimed ranges. The examples in Table 4 are drawn to compositions in which the Fe content is 0.06% and 0.03% (Specimens 76-78 and 80-82, respectively), the Nb content is 0.001%, and the Co content is 0.001%. Reliance on these two particular compositions alone makes it unclear whether the discoloration resistance occurs over the entire claimed range of 0-0.06% Fe, 0-0.001% Nb, and 0-0.001% Co.

Additionally, the criticality of the heating temperature range has not been established. Specimens (A) through (S) were heated within the claimed temperature range, but no evidence has been provided showing that heating at temperatures outside the claimed range yields a material with unexpectedly low resistance to discoloration. Furthermore, the example soaking times in Table 3 makes it unclear whether poor (or superior) discoloration resistance occurs over the entire range that is less than (or greater than) the critical value.

Applicant should establish a nexus between the rebuttal evidence and the claimed invention, i.e., objective evidence of nonobviousness must be attributable to the claimed invention (MPEP § 2144.08). The weight attached to evidence of secondary considerations by the Examiner will depend upon its relevance to the issue of obviousness and the amount and nature of the evidence (MPEP § 716.01(b)).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanessa Velasquez whose telephone number is (571)270-3587. The examiner can normally be reached on Monday-Friday 8:30 AM-6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached at 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

/Vanessa Velasquez/
Examiner, Art Unit 1793